

CHAPTER 28



Advanced Relational Database Design

In this chapter we cover advanced topics in relational database design. We first present the theory of multivalued dependencies, including a set of sound and complete inference rules for multivalued dependencies. We then present PJNF and DKNF, two normal forms based on classes of constraints that generalize multivalued dependencies.

Bibliographical Notes

The notions of 4NF, PJNF, and DKNF are from [Fagin (1977)], [Fagin (1979)], and [Fagin (1981)], respectively. Additional dependencies are discussed in detail in [Maier (1983)].

Bibliography

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- [**Maier (1983)**] D. Maier, *The Theory of Relational Databases*, Computer Science Press (1983).

